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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,762	07/28/2003	Kenichi Machida	0505-1215P	4411

2292 7590 05/20/2005

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EXAMINER	
ENGLISH, PETER C	
ART UNIT	PAPER NUMBER
3616	

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/627,762	MACHIDA ET AL.	
	Examiner	Art Unit	
	Peter C. English	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 28 July 2003 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because:

In Fig. 3, the orientation of the sensor detection shaft is inconsistent with the description found in paragraphs 25 and 26.

In Fig. 5(b), "+SENSOR OUTPUT" should be "X COMPONENT".

In Fig. 7, box S18 contains only a single absolute value sign.

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to because:

In paragraph 1, at line 2, "2002-223687" should be "2002-223678".

In paragraph 21, at line 11, the acronym "PB" should be defined.

In paragraph 25, at line 5, "7" should be "7a".

Paragraphs 25 and 26 describe the acceleration sensor as having a "detection shaft". It is unclear whether this is accurate. Does the sensor have an actual "shaft", or does applicant intend to define only a detection axis?

In paragraph 28, at line 4, "unit" should be "units".

In paragraph 44, at line 1, "when standing upright" should be inserted after "output". See paragraph 46 and Fig. 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it inaccurately defines the invention as including a plurality of units—"an overturn detecting unit" (line 2), "an engine stopping unit" (line 4) and "a restoration unit" (line 9). The invention does not include a plurality of "units". Instead, the ECU (i.e., a single element of the invention) performs all of the functions recited in claim 1.

In claim 1, at line 3, "a detection shaft disposed laterally" appears to be indefinite. Does the sensor have an actual "shaft", or does applicant intend to define only a detection axis?

In claims 5-8, at line 2, "weight sensing unit" is indefinite for the same reason given above with respect to the recitation of "units" in claim 1.

In claims 5-8, at line 2, "...higher detect output" is indefinite because it is unclear what element produces this "output".

In claims 5-8, at lines 2-3, "to reflect...according to the deviation of" is confusing and not understood.

In claims 5-8, at line 3 and lines 3-4, "the detected output" is indefinite because more than one detected output has been previously defined.

In claims 5-8, at line 3 and line 4, "said average value" is indefinite because more than one average value has been previously defined.

In claims 6-8, at line 2, "the higher detected output" lacks proper antecedent basis.

In claim 6, at line 3, "output of said average value" is inaccurate because the average value does not produce an output.

In claims 9-12, at line 2 and lines 3-4, "a detected value" is indefinite because it is unclear what parameter this detected value corresponds to.

In claims 9-12, at lines 2-3, "the averaged output" lacks proper antecedent basis. Note also the occurrence of this term at line 4.

In claim 13, at lines 2-3, "a detection shaft disposed laterally" appears to be indefinite. Does the sensor have an actual "shaft", or does applicant intend to define only a detection axis?

Claim 13 is indefinite because the "stopping" step (see line 4) is recited before the "determining" step (see line 6). The engine is not stopped until after it is determined that the vehicle is overturned. See Fig. 6.

In claim 13, "said overturn detecting unit" (lines 4-5) and "said engine stopping unit" (line 9) lack proper antecedent basis. Further, these terms are indefinite for the same reason given above with respect to the recitation of "units" in claim 1.

Claim 13 is indefinite because it recites both a step of "detecting overturning" (see line 2) and a step of "determining that the vehicle has overturned" (line 6). Both of these steps appear to refer to the same part of the control process.

In claims 17-20, at lines 2 and 4, "a detected value" is indefinite because it is unclear what parameter this detected value corresponds to.

In claims 17-20, at line 3, "the averaged output" lacks proper antecedent basis. Note also the occurrence of this term at line 4.

Allowable Subject Matter

5. Claims 1-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

6. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach an engine control apparatus that stops an engine when average outputs of an acceleration sensor exceed an overturn threshold a first preset number of times, and that releases the engine stop when subsequent outputs of the acceleration sensor are below a restoration threshold a second preset number of times.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sasaki, Tzanev and JP 59231162 teach systems for stopping engines when vehicles are overturned.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. English whose telephone number is 571-272-6671. The examiner can normally be reached on Monday through Thursday (7:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Peter C. English 5/16/05
Primary Examiner
Art Unit 3616

pe
16 May 2005